JVC

ENGLISH
DEUTSCH
FRANÇAIS
ITALIANO

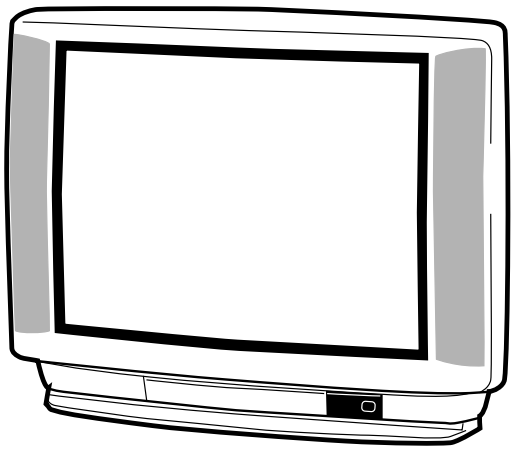
AV-28BK5ECB
AV-28BK5ECS

COLOUR TELEVISION

INSTRUCTIONS

FARBFERNSEHGERÄT
TELEVISEUR COULEUR
TELEVISORE A COLORI

BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTION
ISTRUZIONI



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What is 100Hz ?

Flicker-free picture resulting from the use of 100Hz technology. Conventional sets use 50 fields per second (50Hz) a frequency to which the human eye is sensitive. With 100Hz the picture is much easier on the eye.

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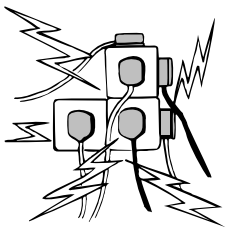
SAFETY PRECAUTIONS

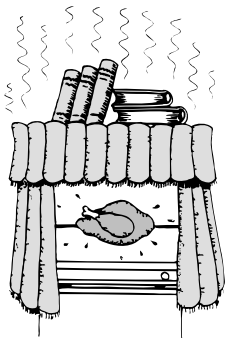
CAUTION: Please read and retain for your safety. This unit has been engineered and manufactured to assure your personal safety. But improper use can result in potential electric shock or fire hazards. In order not to defeat the safeguards incorporated in this receiver observe the following basic rules for its installation, use and servicing.

Installation

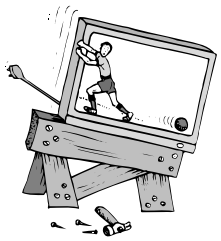


Do not allow anything to rest on the power cord. **Do not** locate this television receiver where the cord will be damaged by people walking on it.

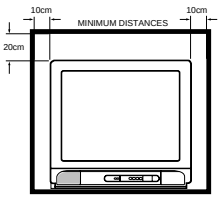
Do not overload wall outlets and extension cords as this can result in fire or electric shock.

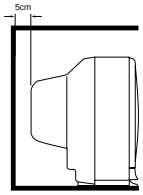


Slots and openings in the cabinet and in the back or bottom are provided for ventilation to ensure reliable operation and to protect it from overheating. These openings **must not** be blocked or covered. The opening **should never** be covered with a cloth or other material, and the bottom openings **should not** be blocked by placing the television receiver on a bed, sofa, rug, or other similar surface. This television receiver **should never** be placed near or over a radiator or heater.



Do not place your television receiver on an unstable stand, shelf or table. Serious injury to an individual, and damage to the television may result if it should fall.



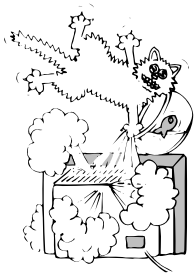


This television receiver **should not** be placed in a built-in installation such as a bookcase unless proper ventilation is provided.

If the television is built into a unit, or enclosed, the minimum distances for ventilation must be maintained. Heat build up can reduce the life of your television, and can be dangerous.

Use

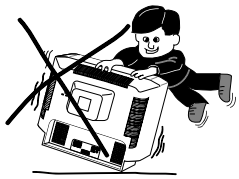
This television receiver should be operated only from the type of power source indicated on the television or as indicated in the Operating Instructions. If you are not sure of the type of power supply in your home, consult your sales person or your local power company.



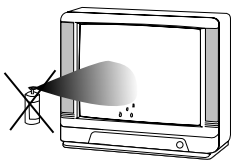
Never add accessories that have not been specifically designed for this television.

Do not drop or push objects into the television cabinet slots or openings. Some internal parts carry hazardous voltages and contact may result in an electric shock hazard. **Never** spill liquids of any kind on the television receiver.

Do not expose the television receiver to rain or use near water. For example, near a bathtub, kitchen sink, in a wet basement, etc. Before cleaning, unplug the television receiver from the wall socket.



Never stand on, lean on or push suddenly the television or its stand. You should pay special attention to children. Serious injury may result if it should fall.

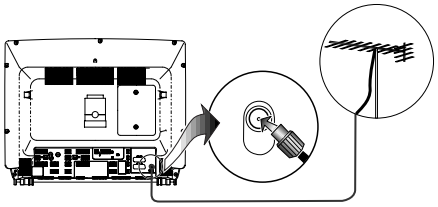


Do not apply liquid cleaners or aerosol cleaners directly onto the television receiver. Use a damp cloth for cleaning.

INSTALLATION

STEP 1 : Connect aerial cables

Insert an aerial plug tightly into the aerial socket on the back of the TV set.



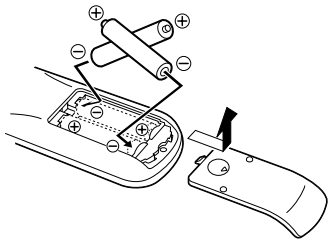
✎ For all aerial problems please consult your local dealer.

✎ The connection to the peripheral AV equipment, refer to section "USING AV EQUIPMENT" on page 10, 11.

STEP 2 : Install batteries

1 Remove the battery cover by sliding it in direction of the arrow.

2 Install two "AAA/R03" 1.5 volt batteries so that the "+" and "-" marks on the batteries match the "+" and "-" marks inside the unit.



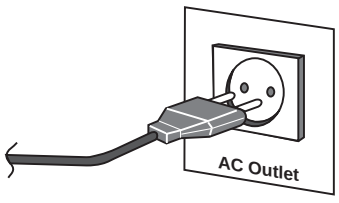
3 Close the battery cover.

✎ Replace the batteries when the TV set is showing the following symptoms: Operation is unsteady or erratic, sometimes the TV does not work with the transmitter. Discharged batteries may leak and damage the unit. The normal life of batteries should be from nine to ten months.

Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

STEP 3 : Connect AC Cord

The TV set is prepared for a mains voltage AC220~240V, 50Hz. Connect the power cord of the TV set to a wall outlet. When the TV set is not to be used for an extended period of time, it is advisable to disconnect the power cord from the power outlet.



WARNING!
High voltages are used in the operation of this set. Refer service to qualified service personnel.

STEP 4: Turn Mains switch-on

This TV set provides a self-automatic tuning function called "Plug & Play". The first time you switch on this TV set, it will automatically begin to search and store all available channels. To ensure that this feature works properly please follow the steps below before you switch on the TV set.

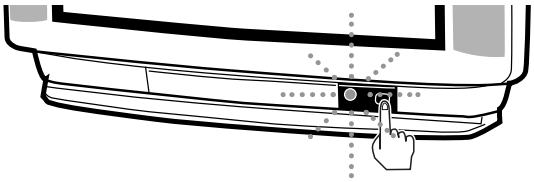
Please make sure that your aerial cable is connected to the aerial socket of the TV set before switching on.

Plug the Mains cable plug into a wall socket.

✎ *This TV set is prepared for a mains voltage of AC220~240V 50Hz.*

1 You are now ready to switch on. Simply press the **Mains ON/OFF** switch on the front of the TV set.

A red power indicator will appear.



The first page of "ATS euro plus" appears.

If no picture appears but the power indicator is on, press the ⏻/I , **P∧** , **P∨**, **P▲, P▼** or **0 - 9 button** as the TV set is in the standby mode.

Select country and Language

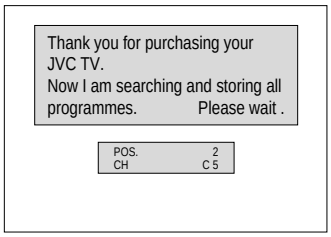
2 Select the country using the ▲ ,▼ or ◀ or ▶ **button**. Press the **P.MODE/OK button**.

The next page appears for selecting your display language.

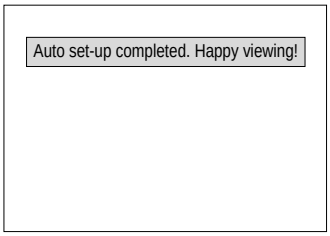
3 Select the language identification letter by using the ▲ ,▼ or ◀ or ▶ **button**. Press the **P.MODE/OK button**.

After you have selected a language, all messages and information which subsequently appear on the screen will be in this language.

■ The ATS euro plus system will start as follows: The tuning status and welcome messages will appear on the screen.



After completing the searching operation for all available stations, the Auto sorting will be done according to ATS euro plus sorting rule based upon your country selection. Then the programme position 1 is selected. The ending messages appears on the screen in your language.



To make this message disappear, press the ⏻/I , ▲, ▼, ◄ , ► or **0 - 9 button**.

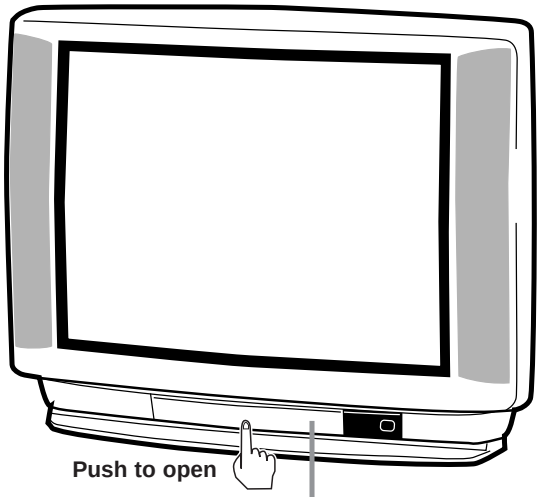
Now the installation is completed!

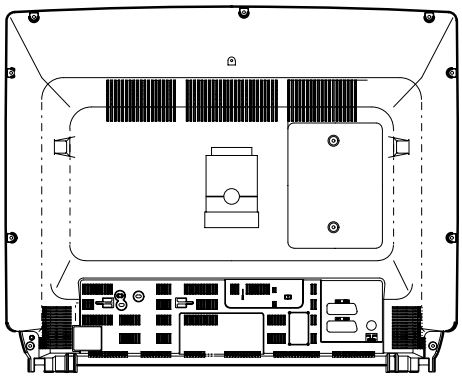
To receive the satellite broadcasting, a satellite tuner is required. Before carrying out the automatic setting up, receive the satellite broadcasting on the satellite tuner.

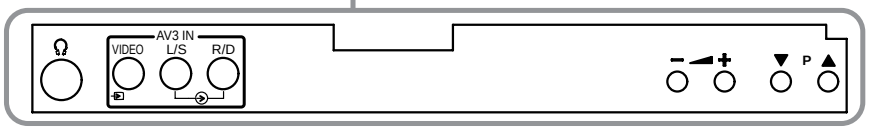
This procedure only appears the first time you switch on.

If additional channels become available (you move to another city or cable is installed), please follow the description “PRESETTING”. (on page 13, 14).

PRODUCT OVERVIEW

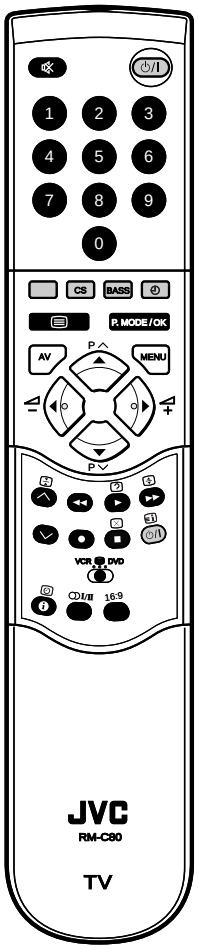


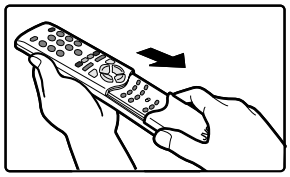




Controls and terminals on the TV

Symbol	Function
⏻	Mains On/Off switch
P▼ P▲	Programme down/up
- ◢ ◢ +	Level down/up
	Video input AV3
	Audio input L R AV3
	Headphone socket





Controls on the Remote Control Handset

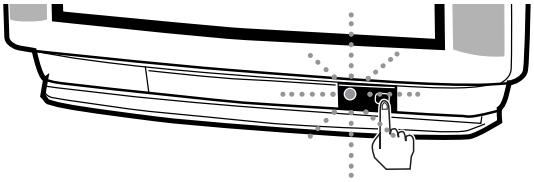
Symbol	Function
⏻/I	Power on/Standby
P.MODE/OK	Picture mode setting/OK
MENU	Menu display
AV	TV/AV selector
	Sound attenuation
P∨(▼), P∧(▲)	Programme down/up (Menu control ⇩/⇧)
-◢(◀), ◢+(▶)	Level down/up (Menu control ⇦/⇨)
0-9	0-9 Numeric buttons
CS	Channel Selection mode selector
	Time display
	Programme status call/Selection of colour system in AV mode
16:9	16:9 Format Signal Selector
BASS	Bass Expander
I/II	Stereo/Bilingual switch

- For the use of teletext controls, please refer to section “Teletext” on page 15~16.
- For the use of VCR/DVD controls, please refer to “VCR/DVD controls” on page 10.

Switching on/off with Mains switch

● To turn the TV set ON, press the **Mains ON/OFF switch**. The power indicator illuminates to show the power is on.

● To turn the TV set OFF, press it again.



If no picture appears but the power indicator is on, press the ⏻/I **button, P∧, P∨, P▲, P▼** or **0-9 button** as the TV set is in the Standby mode.

Switching into/from Standby Mode

● To turn the TV set into standby mode, press the ⏻/I **button**. The power indicator illuminates more brightly.

● To turn the TV set ON from standby mode, press any of the following buttons: ⏻/I **, P∧** or **P∨, 0 - 9 Numeric buttons**.

✎ The **Mains ON/OFF switch** must be in the ON position before the using remote control transmitter.

✎ Standby mode is used for switching the TV set off for short periods of time. In standby mode the TV is switched off but is still receiving mains power.

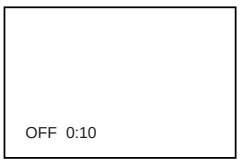
If you found a power indicator flashing, please turn the TV set off completely with the **Mains ON/OFF ⏻ switch** and contact our service personnel.
This warning is a sign to let you know that the power protection function of this TV set is now operating.

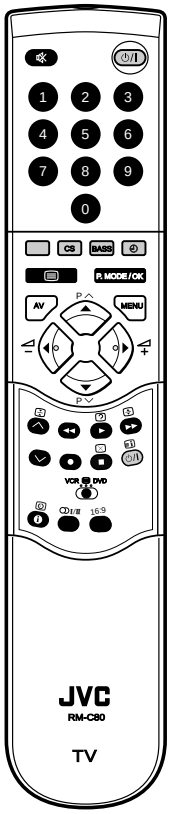
■ Auto Shut Off

This TV set will automatically switch into the standby mode, 10 minutes after a signal is no longer received. The time until the set will switch off is displayed on the screen.

✎ If the aerial is removed the TV set will automatically switch into the standby mode after 10 minutes.

✎ When the TV set is switched on by using the On-timer function with no signal being received, the auto-shut off function will be ignored.





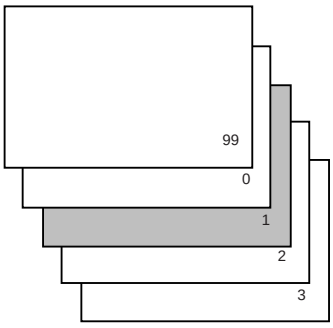
Programme Selection

■ Up/Down Programme Selection

Press the **P▲** or **P∧ button** to select the next programme number.
Press the **P▼** or **P∨ button** to select the previous programme number.

■ Direct Programme Selection

For selection of programme position 0-9, press the corresponding **numeric button(0-9)**.
For selection of programme position 10-99, for example 23, press the **2** then **3 numeric button**.



Sound & Picture settings

■ Sound Volume Control

To adjust the sound volume, press the + / - **button.**

■ Sound mute

Press the **button**, the sound from the speakers will be muted. Press it again to switch the sound back on.

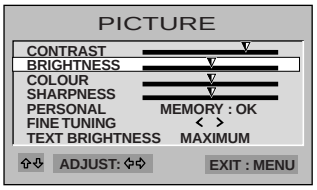
When the + or - **button** is pressed, the sound mute will be cancelled.

■ Picture Adjustment

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **PICTURE** menu.

2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the desired control from the menu eg. **BRIGHTNESS**.



CONTRAST : To adjust the picture contrast.
BRIGHTNESS : To adjust the picture brightness.
COLOUR : To adjust the picture colour.
TINT: To adjust the colour phase (appears when receiving a NTSC signal only).
SHARPNESS : To adjust the picture sharpness.
TEXT BRIGHTNESS : To select the teletext brightness level of the teletext mode.
FINE TUNING : To make fine adjustments to tuning. (appears in TV mode only)

4 When pressing the ◄ or ► **button** once, the screen display will change for selected control mode, and then press and keep button to change desired picture control level. The mode returns to control selecting mode in 2 seconds if no key pressed.

Repeat steps 3-4 for setting the proper picture levels.

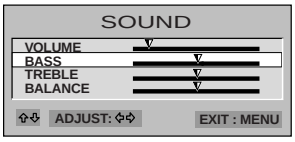
To return to the TV mode, press the **MENU button**.

■ Sound Adjustment

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **SOUND** menu.

2 Press the **P.MODE/OK button** on the remote control handset.

3 Use the ▲ or ▼ **button** to highlight the desired control from the menu eg. **BASS**.



VOLUME : To adjust the sound volume level.
BASS : To adjust low frequency sounds.
TREBLE : To adjust high frequency sounds.
BALANCE : To equalise the output from the left and right speakers.

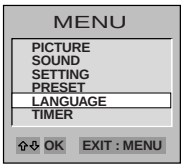
4 Press the ◄ or ► **button** to adjust the selected control level up or down.

To return to the TV mode, press the **MENU button**.

On screen language setting

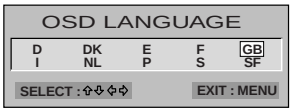
We prepare languages for the On-screen display as follows, you can chose own language in following steps.

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **LANGUAGE** menu.



2 Press the **P.MODE/OK button**.

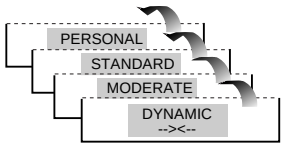
3 Select the language identification letter by using the ◄ or ►, ▲ or ▼ **button**.



To return to the TV mode, press the **MENU button**.

Picture mode selection and Personal preference setting

This TV provides predefined three picture modes and one adjustable personal picture preference mode. You can choose your preferred picture mode by pressing the **P.MODE/OK button** repeatedly.



PERSONAL : Personal preference mode

STANDARD : Normal viewing mode

MODERATE : Low contrast, brightness and colour picture setting (Suitable for dimly lit rooms and gives a cinema-like effect which the lights are switched off, or Economical mode).

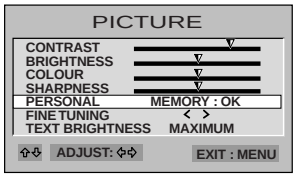
DYNAMIC : High contrast, brightness and colour picture setting (Suitable for brightly lit rooms).

■ To store your personal preference into "PERSONAL" mode

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **PICTURE** menu and press the **P.MODE/OK button**.

2 Adjust picture controls to your preferred control level by using the ▲,▼ or ◄, ► **buttons**.

3 Use the ▲ or ▼ **button** to highlight the **PERSONAL** menu and press the **P.MODE/OK button**. The control window will momentary blink to show the memorisation.



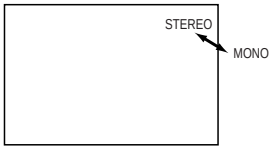
To return to the TV mode, press the **MENU button**.

✎ The fine tuning control level will not be memorised into the "PERSONAL" mode.

Stereo Bilingual Reception

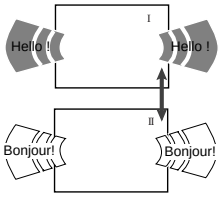
■ Stereo sound reception

If the TV receives stereo programs, it automatically switches to stereo sound reception. The word "STEREO" appears on the screen briefly.



■ Bilingual reception

If the TV receives bilingual programs, the TV initially selects language I and displays "I" on the screen briefly. If you want to switch to language II, press the I/II **button**.



If the stereo sound reception is poor in quality, you can switch to "MONO" sound reception by pressing the I/II **button**.

ADDITIONAL FUNCTIONS

■ Child Lock

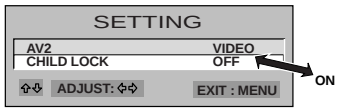
This TV has a child lock function which inhibits the use of the buttons on the front of the TV set. With this you can prevent small children unexpectedly pressing buttons.

● SETTING

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ button to highlight the **SETTING** menu.

2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the **CHILD LOCK** menu. Select "ON" or "OFF" by pressing the ◄ or ► **button**.

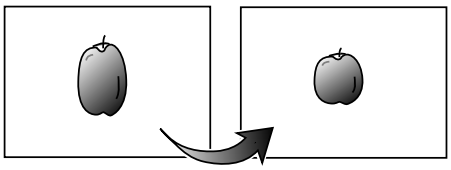


To return to the TV mode, press the **MENU button**.

To cancel the child lock mode, follow the above procedure and you should select "OFF" in step 3 or switching off the TV set with the **Mains ON/OFF** ⏻ **switch.**

■ 16:9 Format Signal Reception

The future trend is towards transmission in a 16:9 picture ratio instead of the current 4:3 picture ratio. If you receive one of these transmissions, the vertical scale will be expanded to fill the screen giving a squashed picture.



✎ Press the **16:9 button**, the picture will obtain its proper height.

✎ If this button is pressed during a 4:3 transmission, the picture will be compressed vertically.

■ Bass Expander

To get an emphasized bass sound, press the **BASS button**.
The word "BASS" appears on the sound display.

■ Programme Information Display

Press the ⓘ **button** once, the programme information such as current programme number, stereo status, remaining timer if set.

■ Time Display

In the TV mode, if the receiving programme has a teletext service when the 🕘 **button** is pressed, the present time will be displayed on the screen for 5 seconds.

USING AV EQUIPMENT

You can connect a VCR, S-VHS VCR, Satellite Tuner, PAY TV Decoder or Camcorder, as this TV has three Scart terminals on the rear panel and one pair of AV input terminals on the front panel.

■ Selection of AV mode

Most AV equipment will automatically switch to the AV mode (because of the pin 8 function signal) by pressing the PLAY button on your AV equipment. If not, press the **AV button** to select the desired AV mode manually.

■ Setting of AV2 input mode

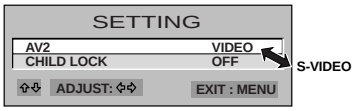
If you want to use a VCR which is equipped with the S-VHS capability, to obtain the best performance, you should connect to the AV2 terminal and select the S-Video mode in the AV2 mode.

● SETTING

1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **SETTING** menu.

2 Press the **P.MODE/OK button** on the remote control handset.

3 Use the ▲ or ▼ **button** to highlight the **AV2** menu. Select "S-VIDEO" or "VIDEO" by pressing the ◀ or ▶ **button**.



To return to the TV mode, press the **MENU button**.

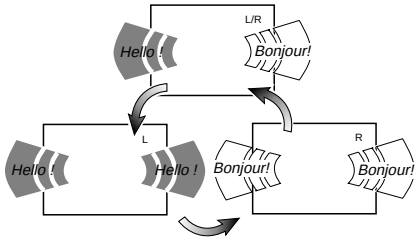
■ Use of front AV3 terminal

This TV provides one pair of AV input terminal on the front panel. It is very convenient for use as a game or camcorder connection.

Press the **AV button** to select the AV3 mode.

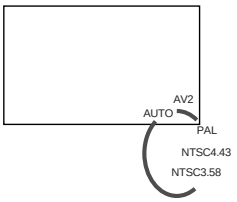
■ Selection of the sound track from the equipment

By pressing the I/II **button** repeatedly, you can select the sound track L (left), R (right) or L/R from the equipment connected to the scart terminals or the front AV terminal.



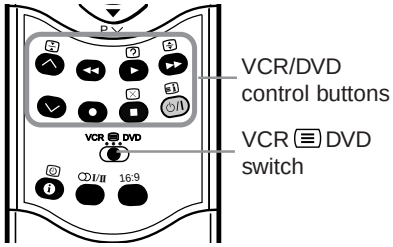
■ Selection of colour system

This TV provides the multi-colour system decoder. The default mode of each AV mode is "AUTO". This mode automatically selects the correct colour system from the input source signal. If you have the incorrect colour images on the screen, please switch to PAL, NTSC 3.58 or NTSC 4.43 colour system by pressing the ⓘ **button** repeatedly. The selected system in each AV mode will be stored into the memory.



■ VCR/DVD Controls

The VCR/DVD control buttons can be used to operate a JVC brand VCR or DVD player. Pressing the button having the same appearance as the original remote control button of a device makes the function work in the same way as the original remote control.



1 **Set the VCR ☰ DVD Switch to the VCR or DVD position.**

VCR: When you are operating the VCR, set the switch to the VCR position.

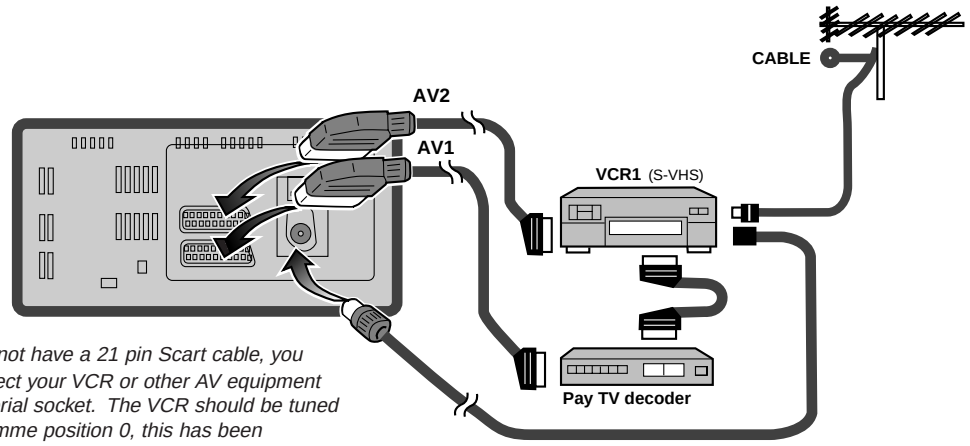
DVD: When you are operating the DVD player, set the switch to the DVD position.

2 **Press the VCR/DVD control button to control your VCR or DVD player.**

- If your device is not made by JVC, these buttons cannot be used.
- Even if your device is made by JVC, some of these buttons or any one of the buttons may not work, depending on the device.
- You can use the ∧/∨ buttons to choose a TV channel. The VCR will receive or choose the chapter the DVD player plays back.
- Some DVD player models use the ∧/∨ buttons for both operating of Fast forward/backward functions and choosing the chapter. In this case, the ◀◀/▶▶ the buttons do not work.

Connections

The following is our recommended standard connection for AV equipment. There are various types of connections depending on the equipment which you have or its particular use. For further information please consult your local dealer. If you have a S-VHS type VCR, to obtain the best performance it should be connected to the AV2 terminal which has been specially designed for S-VHS.

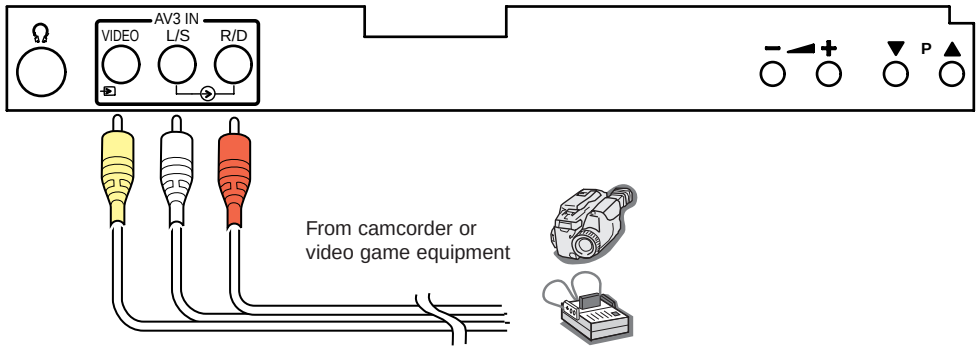


If you do not have a 21 pin Scart cable, you can connect your VCR or other AV equipment via the aerial socket. The VCR should be tuned to programme position 0, this has been especially designed for VCR use.

■ Use of a Camcorder or game equipment

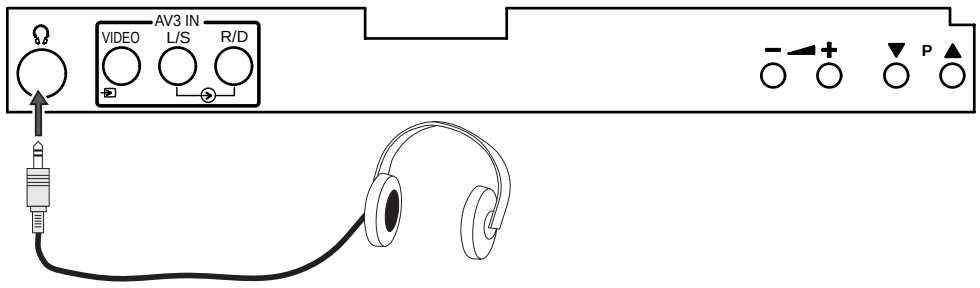
CONNECTION

✔ Connect an RCA cable from the front AV terminal (AV3) to a camcorder or to game equipment.



■ Use of Headphones

The 3.5mm mini-stereo jack socket located behind the door of the TV can be used for headphones. When the headphones are inserted the sound from the TV speakers is muted.



TIMER

The timer function of this TV set has a time countdown system. After the timer has been set, the TV begins the countdown from the set time period and carries out the set timer function when the time is up. The setting status of each timer can be confirmed by using the Timer menu. The remaining time of the on-timer and off timer can be displayed on the screen by pressing the ⓘ button, also any other functions which have been set will be shown, these are displayed each time you change the programme position.

This TV has three timer functions.

■ **Off timer setting** The Off timer will switch into the standby mode when the set timer is up.

■ **On timer setting** The On-timer will switch on from the standby mode when the set timer is up.

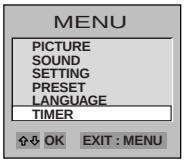
■ **Alarm timer setting** The Alarm timer will display the time up sign on the screen and beeps when the set timer is up.

✎ If the TV set is switched off by the **Mains Switch** ⏻ or a power failure occurs, the timer settings will be cancelled.

Function	Maximum time periods	Step
Off Timer	120 minutes	30 minutes
On-Timer	24:00 Hours	15 minutes
Alarm Timer	3:00 Hours	5 minutes

Off Timer Setting

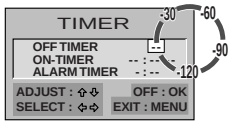
1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **TIMER** menu.



2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the **OFF TIMER** menu.

4 Highlight the time setting column by using the ◄ or ► **button**, and using the ▲ or ▼ **button** to select a time period. The display changes in 30 minute steps and the maximum time period is 120 minutes.



✎ To change to another timer mode, first select timer selection mode (highlight a row) using the ◄ or ► **button** and then change desired timer mode by using the ▲ or ▼ **button.**

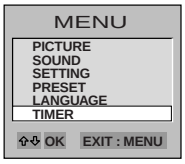
To return to the TV mode, press the **MENU button**.

If you have set a time, then one minute before the TV switches off the remaining minute (-1) automatically appears on the screen.

To cancel the Off timer, select timer "--" by pressing the P.MODE/OK button or using the ▲ or ▼ button in step 4.

On-Timer Setting

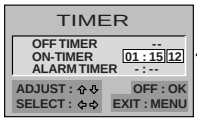
1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **TIMER** menu.



2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the **ON-TIMER** menu.

4 Highlight the time setting column or start up program setting column by using the ◄ or ► **button**, and using the ▲ or ▼ **button** to set a time or program position. The display changes is 15 minute steps and the maximum time period is 24:00 hours. The colour of the power indicator will change to yellow to show the On-timer has been set.



✎ To change to another timer mode, first select timer selection mode (highlight a row) using the ◄ or ► **button** and then change desired timer mode by using the ▲ or ▼ **button.**

5 Return to the TV mode by pressing the **MENU button**, and press the ⏻/I **button** to switch into the standby mode.

When the set timer is up, the TV set will switch on and select the start-up programme automatically.

To cancel the On-timer, select timer "--:--" by pressing the P.MODE/OK button or using the ▲ or ▼ button in step 4.

Advance

When the set timer is up and the TV set is kept on, the TV set changes automatically to the programme position which you have set the start-up programme in the on-timer function.

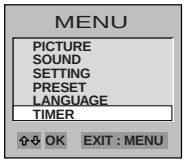
✎ When the TV set is switched on by using the on-timer function, the TV set will automatically switch into the standby mode in 3 hours if no key control is input.

TIMER / PRESETTING

Alarm Timer Setting

This function can display the time up sign on the screen as illustrated to let you know that the time has come when the set alarm time is reached. This only happens when the TV is on. This may remind you to do something.

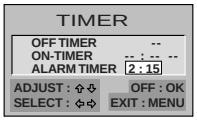
1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **TIMER** menu.



2 Press the **P.MODE/OK button**.

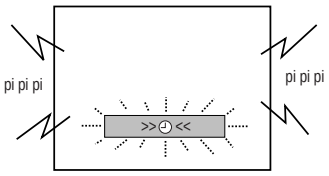
3 Use the ▲ or ▼ **button** to highlight the **ALARM TIMER** menu.

4 Highlight the time setting column by using the ◄ or ► **button**, and using the ▲ or ▼ **button** to select a time period. The display changes in 5 minute steps and the maximum time period is 3:00 hours.



✎ To change to another timer mode, first select timer selection mode (highlight a row) using the ◄ or ► **button** and then change desired timer mode by using the ▲ or ▼ **button.**

When the time period is up, the time up signal will appear on the screen and the alarm will sound for 15 seconds.



✎ To make this alarm display disappear, press any button.

To cancel the Alarm timer, select timer "-:--" by pressing the P.MODE/OK button or using the ▲ or ▼ button in step 4.

What is ATS euro plus ?

TV stations broadcast their programs on their own channels. These channels must be assigned to programme positions in the TV. ATS euro plus is automatic channel programming. This channel search and memory system scans the entire reception range, stores the programs found and enters them, with the accompanying station identification in the memory. The programs thus found are, at the same time, evaluated on terms of their reception quality. This means that programs with insufficient reception quality are entered further down in the programme position. As a result, only programs with good picture quality are entered in the front programme positions. You can, of course, alter this automatic allocation of programme positions as you wish.

Presetting

Up to 100 broadcast stations in your reception area can be stored in the electronic memory.

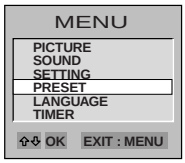
There are two modes of pre-setting channels as follows:

■ **ATS EURO PLUS (Auto-tuning system)**
All receivable channels are automatically found, stored and sorted.

■ **PRG. PRESET (Manual tuning)**
Used to preset a receivable channel in any desired programme position.

ATS EURO PLUS (Auto-tuning system)

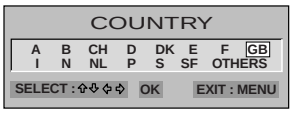
1 Press the **MENU button** to display the main menu. Use the **P**▲ or **P**▼ **button** to highlight the **PRESET** menu.



2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the **ATS EURO PLUS** menu, then press the **P.MODE/OK button**.

4 Use the ▲ ,▼ , ◄ or ► **button** to select the location where you are. Select the country identification letter, and then press the **P.MODE/OK button**.



5 Use the ▲ ,▼ , ◄ or ► **button** to select the display language. Select the language identification letter, and then press the **P.MODE/OK button**.

■ The ATS euro plus system will be started as follows;

The tuning status will appear on the screen.

After completing the searching operation for all available stations, the Auto sorting will be done according ATS euro plus sorting rule based on your country selection. Then the programme position 1 is selected.

Now the ATS euro plus operation is completed !

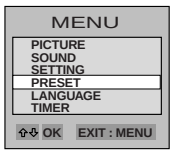
The ATS operation can be cancelled at any time by pressing the **MENU button**.

ENGLISH

PRESETTING

Manual Tuning (PRG.PRESET)

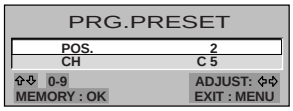
1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **PRESET** menu.



2 Press the **P.MODE/OK button**.

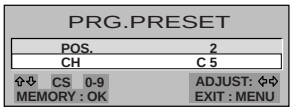
3 Use the ▲ or ▼ **button** to highlight the **PRG.PRESET** menu, then press the **P.MODE/OK button**.

4 Select the programme position you wish to preset by using the ◀ or ▶ or **0-9 numeric buttons**.



5 Use the ▲ or ▼ **button** to highlight the **CH** menu, then press the ◀ or ▶ **button** to start channel searching until your desired station is found.

Or if you know the channel number of the station, enter the channel number directly. To switch to another band, press the **CS button**. The display changes “C--” to “H--” alternately. Please see channel allocation table on page 19.



6 Press the **P.MODE/OK button** to store in the memory. The preset window will blink momentary.

Repeat steps 4 to 6 for other desired channels.

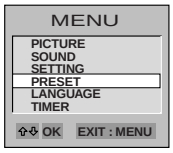
☞ To return to the normal TV mode, press the **MENU button**.

This completes the Manual presetting.

Channel Swapping

Use this channel swapping feature to swap the channels between two stored programme positions. This feature is particularly useful after automatic presetting.

1 Select one of TV channels you wish to swap by using the **P▲**, **P▼**, **P∧**, **P∨** or using the **(0-9) numeric buttons**.

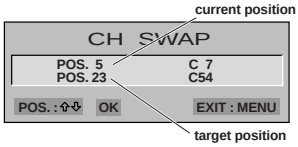


2 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **PRESET** menu.

3 Press the **P.MODE/OK button**.

4 Use the ▲ or ▼ **button** to highlight the **CH SWAP** menu, then press the **P.MODE/OK button**.

5 Use the ▲ or ▼ **button** to select the target programme position for swap channels then press the **P.MODE/OK button**. The preset window will blink momentary.

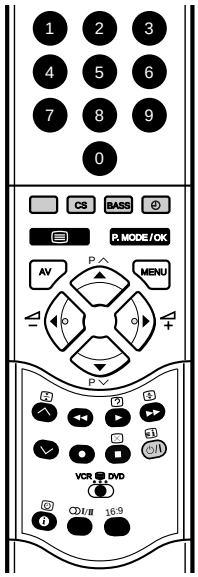


The two TV channels will now have changed places.

Repeat steps 1 to 5 for all the other TV channels you want to swap.

☞ To return to the normal TV mode, press the **MENU button**.

■ Teletext Controls

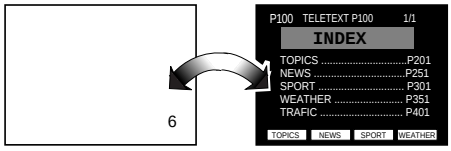


Symbol	Function
VCR ≡ DVD	VCR/Teletext/DVD switch
≡	Teletext/TV mode switch
0-9	0-9 numeric buttons
P∨P∧	Page down/up
i	Index page selection
	Hold
	Size
	Cancel
	Sub code entry mode
?	Reveal
	Red
CS	Green
BASS	Yellow
	Blue

■ Switching to the teletext mode

1 Set the **VCR ≡ DVD switch** to the ≡ (Teletext) position.

2 Press the ≡ **button**, and the screen changes as illustrated.



Picture & Sound in teletext mode

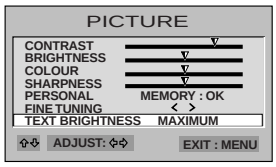
● **Picture and Text brightness controls in the teletext mode.**
You can not adjust the picture or teletext brightness in the teletext mode. You must first switch back to the TV mode and then adjust the picture control or set the teletext brightness level.

How to set the teletext brightness level

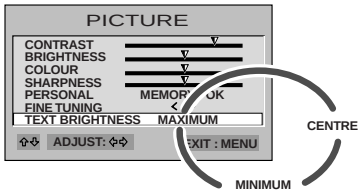
1 Press the **MENU button** to display the main menu. Use the ▲ or ▼ **button** to highlight the **PICTURE** menu.

2 Press the **P.MODE/OK button**.

3 Use the ▲ or ▼ **button** to highlight the **TEXT BRIGHTNESS** menu.



4 Select one of 3 teletext brightness levels either MAXIMUM, CENTRE or MINIMUM by pressing ◀ or ▶ **button**.



To return to the TV mode, press the **MENU button**, and confirm the selected teletext brightness level into the teletext mode by pressing ≡ **button**.

● **Sound volume control**
Only sound volume and muting can be controlled in the teletext mode.

■ Page Selection

● **Direct page access**
Enter a page number directly using the **0-9 numeric buttons**. eg. To select page 301, press **3** then **0** and then **1**.

● **Up/down page access**
Press the **P∧** or **P∨ button** to select the next or previous page number.

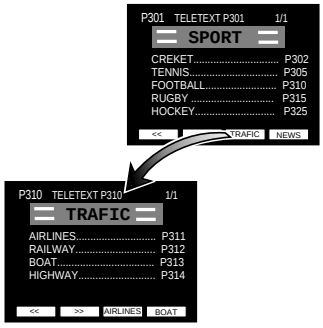
P∧ : P301 → P302 → P303 .... P399 → P400 ....
P∨ : P301 → P300 → P299 → P298 ....P201 ....

● **Coloured Page Access**

Depending on the TV channel, teletext is transmitted in different systems. The system utilised can be recognised by the coloured line at the bottom of the screen.

Press one of the **4 coloured buttons** to select the topics shown at the bottom of the text screen.

For example the Red topic can be selected using the **Red button**, the Blue topic by the **Blue button**, and so forth with the other colours.



When the teletext service is not transmitting with the TOP or FLOF, 4 coloured page numbers will appear at the bottom of the screen instead of the topics.

■ Index Page Selection

● ***Receiving TOP teletext system***

✐ When you press the **button**, the classified table will appear on the screen. To highlight your desired category page by using **Red** or **Blue button** and press **Green button** to go to it's page directly.

Receiving FLOF or another teletext systems

✐ Press the **button** to select one of the teletext index pages.

■ Sub Page Access

With a text page selected which has sub pages, you may wish to read a known sub page number.

1 Press the **button**.

"Sub-Code ----" will be displayed on top of the screen.

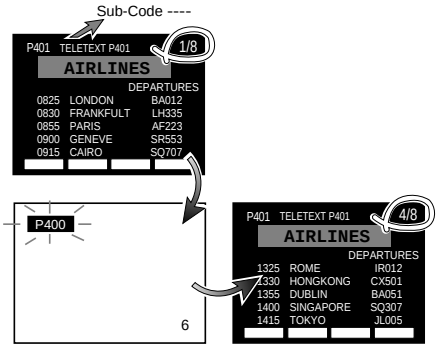
2 Enter the sub page number by using the (0-9) buttons.

☞ For example, to enter the sub page **4**, press buttons **0**, **0**, **0** and **4**.

3 Press the **button** to return the normal TV picture.

Immediately the requested sub-coded page is found, the page number will appear over the TV picture.

4 Press the **button** to view the sub-coded page.



■ Updated pages

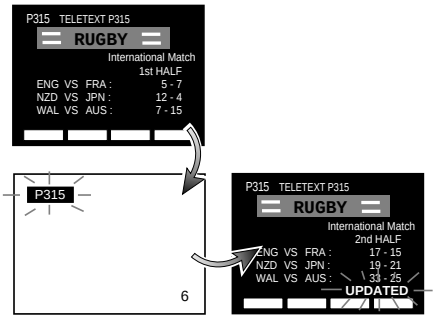
There are teletext pages which are updated as events progress, such as sports results, news reports or traffic information. Select a page which will be updated.

1 Press the **button** to return to the normal TV picture.

Immediately the selected page is updated, the page number will appear over the normal TV picture.

2 Press the **button** to view the updated page.

✐ If the page has sub pages the number will appear when the sub page is changed.



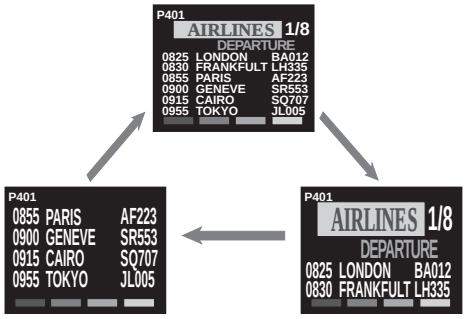
■ Stop

Press the **button** to stop sub pages changing. The word "STOP !" will appear instead of the page number.

✐ Some teletext pages are made up of several sub pages. These sub pages are automatically changed. Sub page is shown as P4/8 (sub page 4 of 8 pages) the location on the text page depends on the text service.

■ Double Letter Height

Either the top half or the bottom half of the page can be expanded to fill the whole screen by pressing the **button**.



■ Displaying Concealed Information

Press the **button** to reveal hidden items on the text page.

Some pages such as quiz pages have the answers hidden. The button may have to be held to keep the answer on the screen, or pressed again to remove the answers.

● **Cancel**

When you press the **button**, the TV picture appears on the screen. Whilst in this mode you can not select another TV programme. You should first switch back to TV reception by pressing the **button** if required.

● **Teletext reception**

If your aerial signal is poor, the teletext reception may be poor.

OTHERS

TV Specifications

Power source	AC 220~240V 50Hz
Power consumption(watts)	Maximum : 155
	Avarage : 120
	Standby : 1.5
Television system	CCIR B/G
Colour system	PAL on Air
	PAL/NTSC3.58/NTSC4.43 in AV mode
Channel coverage	E2-E12, E21-E69, S1-S41,
	X, Y, Z, Z+1, Z+2,
	A-H, H+1, H+2
Sound-multiplex systems	A2 (B/G) system
Teletext systems	FLOF (Fastext), TOP, WST (World Standard System)
AV terminal	
21-pin terminals	AV1: CENELEC Standard with RGB
	AV2: CENELEC Standard with S-inputs
Front AV terminals	AV3: RCA Terminal, Video and Audio(L/R) Input
Sound output (watts)	Rated Power output :5.0 x 2
Picture tubes (cm)	66 (measured diagonally)
Headphone jack	Stereo mini-jack (3.5 mm in diameter)
Speakers (cm)	(5 x 9) oval x 2
Dimensions (WxHxD mm)	736 x 595.5 x 500
Weight (kg)	32.5
Accessories	Remote control handset RM-C80 x 1
	AAA/R03 dry cell battery x 2

Specifications subject to change without notice.

Scart Specifications

Pin	Signal function	Level	AV1	AV2
Pin 1	Audio output (right channel)	0.5V/ 1 K ohm	✔	✔ *monitor out
Pin 2	Audio input (right channel)	0.5V/ 10 K ohm	✔	✔
Pin 3	Audio output (left channel)	0.5V/ 1 K ohm	✔	✔ *monitor out
Pin 4	Audio earth			
Pin 5	Earth (blue)			
Pin 6	Audio input (left channel)	0.5V/ 10 K ohm	✔	✔
Pin 7	Blue (B) input	0.7Vpp/ 75 ohm	✔	
Pin 8	Remote switch input	L:0-2V H: 10-12V	✔	✔
Pin 9	Earth green			
Pin 10				
Pin 11	Green (G) input	0.7Vpp/ 75 ohm	✔	
Pin 12				
Pin 13	Earth (red)			
Pin 14	Earth			
Pin 15	Red (R) or C (chrominance) input	0.7Vpp/ 75 ohm	✔ *Red input	✔ *C-input
Pin 16	Fast blanking	L:0-0.4V H: 1-3V	✔	
Pin 17	Earth (video)			
Pin 18	Earth			
Pin 19	Video output	1Vpp/ 75 ohm	✔ *TV output	✔ *monitor output
Pin 20	Video/sync *1 or Y (luminance) input	1Vpp/ 75 ohm	✔ *Video/sync-input	✔ *Video/Y-input
Pin 21	Connector shield			

OTHERS

Servicing

Your television is fully transistorised and does not contain any user serviceable components.

Removal of the cabinet cover may expose you to dangerous voltages. Refer all servicing to qualified service personnel.

Unplug the television receiver from the wall outlet and refer servicing to qualified service personnel under the following conditions:

■ If the power cord or plug is damaged.

■ If liquid has been spilt into the television receiver.

■ If television receiver has been exposed to rain or water.

■ If the television receiver has been dropped or the cabinet has been damaged.

■ If the television receiver exhibits a distinct change in performance.

■ If the television receiver does not operate normally by following the operating instructions.

Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage. This will often require extensive work by a qualified technician to restore the television receiver to normal operation.

When replacement parts are required, have the service technician verify that the replacements he uses have the same safety characteristics as the original parts. Use of manufacturers specified replacements can prevent fire, shock or other hazards.

Helpful Hints

■ **NO PICTURE, NO SOUND**
- Check if TV is plugged in.
- Try a different channel, if OK, probably station trouble.

■ **POOR PICTURE, SOUND OK**
- Adjust BRIGHTNESS control.
- Adjust FINE TUNING control.
- Check aerial connections.

■ **NO COLOUR, PICTURE OK**
- Adjust COLOUR control.
- Adjust FINE TUNING control.
- Is the programme in colour ?

■ **WEAK PICTURE**
- Check aerial connections on back of set.
- Check aerial for broken wires.
- Re-orient aerial.

The following faults are not caused by the receiver:

"GHOSTS"
Reflections of signals from mountains or high buildings will cause multiple images, called "Ghosts". These abnormal conditions can be reduced to minimum by repositioning aerial or by installing new one suited for your area.

"INTERFERENCE"
Interference may be caused by electrical appliances, car ignition systems, etc. This should normally be a temporary condition, but should this interference persist, contact your dealer.

CHANNEL TABLE

The below table shows the receivable channels and channel allocation for this TV set.

Displayed channel no.	Italian channels	CCIR channels	Vision Frequency [MHz]
C 1			43.25
C 2	A	E2	48.25
C 3	A	E3	55.25
C 4	B	E4	62.25
C 5	D	E5	175.25
C 6	E	E6	182.25
C 7	F	E7	189.25
C 8		E8	196.25
C 9	G	E9	205.25
C10	H	E10	210.25
C11	H+1	E11	217.25
C12	H+2	E12	224.25
C21	21	E21	471.25
C22	22	E22	479.25
C23	23	E23	487.25
C24	24	E24	495.25
C25	25	E25	503.25
C26	26	E26	511.25
C27	27	E27	519.25
C28	28	E28	527.25
C29	29	E29	535.25
C30	30	E30	543.25
C31	31	E31	551.25
C32	32	E32	559.25
C33	33	E33	567.25
C34	34	E34	575.25
C25	35	E35	583.25
C36	36	E36	591.25
C37	37	E37	599.25
C38	38	E38	607.25
C39	39	E39	615.25
C40	40	E40	623.25
C41	41	E41	631.25
C42	42	E42	639.25
C43	43	E43	647.25
C44	44	E44	655.25
C45	45	E45	663.25
C46	46	E46	671.25
C47	47	E47	679.25
C48	48	E48	687.25
C49	49	E49	695.25
C50	50	E50	703.25
C51	51	E51	711.25
C52	52	E52	719.25
C53	53	E53	727.25
C54	54	E54	735.25
C55	55	E55	743.25
C56	56	E56	751.25
C57	57	E57	759.25
C58	58	E58	767.25
C59	59	E59	775.25
C60	60	E60	783.25
C61	61	E61	791.25
C62	62	E62	799.25
C63	63	E63	807.25
C64	64	E64	815.25
C65	65	E65	823.25
C66	66	E66	831.25
C67	67	E67	839.25
C68	68	E68	847.25
C69	69	E69	855.25

Displayed channel no.	Italian channels	CCIR channels	Vision Frequency [MHz]
C75	X	X	69.25
C76	Y	Y	76.25
C77	C/Z	Z	83.25
C78	Z+1	Z+1	90.25
C79	Z+2	Z+2	97.25
C80	S1	S1	105.25
C81	S2	S2	112.25
C82	S3	S3	119.25
C83	S4	S4	126.25
C84	S5	S5	133.25
C85	S6	S6	140.25
C86	S7	S7	147.25
C87	S8	S8	154.25
C88	S9	S9	161.25
C89	S1S	S10	168.25
C90	S11	S11	231.25
C91	S12	S12	238.25
C92	S13	S13	245.25
C93	S14	S14	252.25
C94	S15	S15	259.25
C95	S16	S16	266.25
C96	S17	S17	273.25
C97	S18	S18	280.25
C98	S19	S19	287.25
C99	S20	S20	294.25
H21	S21	S21	303.25
H22	S22	S22	311.25
H23	S23	S23	319.25
H24	S24	S24	327.25
H25	S25	S25	335.25
H26	S26	S26	343.25
H27	S27	S27	351.25
H28	S28	S28	359.25
H29	S29	S29	367.25
H30	S30	S30	375.25
H31	S31	S31	383.25
H32	S32	S32	391.25
H33	S33	S33	399.25
H34	S34	S34	407.25
H35	S35	S35	415.25
H36	S36	S36	423.25
H37	S37	S37	431.25
H38	S38	S38	439.25
H39	S39	S39	447.25
H40	S40	S40	455.25
H41	S41	S41	463.25